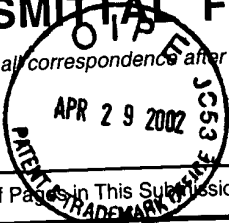


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PTO/SB/21(08/00)  
Approved for use through 19/30/2000. OMB 0651-0031  
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

# TRANSMITTAL FORM

(to be used for all correspondence after initial filing)



Application Number 10/071,127

Filing Date February 8, 2002

First Named Inventor Il-yong Park

Group Art Unit

Examiner Name

Attorney Docket Number 2013P015

Total Number of Pages in This Submission

26

## ENCLOSURES (check all that apply)

☒ Fee Transmittal Form

☐ Fee Attached

☐ Amendment / Response

☐ After Final

☐ Affidavits/declaration(s)

☐ Extension of Time Request

☐ Express Abandonment Request

☒ Information Disclosure Statement

☐ Certified Copy of Priority Document(s)

☐ Response to Missing Parts/Incomplete Application

☐ Response to Missing Parts under 37 CFR 1.52 or 1.53

☐ Assignment Papers (for an Application)

☐ Drawing(s)

☐ Licensing-related Papers

☐ Petition

☐ Petition to Convert a Provisional Application

☐ Power of Attorney, Revocation Change of Correspondence Address

☐ Terminal Disclaimer

☐ Request for Refund

☐ CD, Number of CD(s)

Remarks

☐ After Allowance Communication to Group

☐ Appeal Communication to Board of Appeals and Interferences

☐ Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)

☐ Proprietary Information

☐ Status Letter

☒ Other Enclosure(s) (please identify below):

Form 1449; Prior Art References (18); return postcard

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name

Eric S. Hyman, Reg. No. 30,139

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

Signature

Date

## CERTIFICATE OF MAILING (OR TRANSMISSION)

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class mail with sufficient postage in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on:

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Melissa Stead

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*Melissa Stead*

Date

4-5-02

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APR 29 2002

PTO/SB/17 (10-01)  
Approved for use through 10/31/2002. OMB 0651-0032  
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE  
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.**FEE TRANSMITTAL**  
**for FY 2002**

Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$)

**Complete if Known**

Application Number	10/071,127
Filing Date	02/08/02
First Named Inventor	Il-yong Park, et al.
Examiner Name	
Group Art Unit	
Attorney Docket Number	2013P015

**METHOD OF PAYMENT** (check all that apply)☐ Check ☐ Credit Card ☐ Money Order ☐ Other ☐ None☒ Deposit AccountDeposit Account Number  
Deposit Account Name

02-2666

Blakely, Sokoloff, Taylor &amp; Zafman

The Commissioner is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments  
☒ Charge any additional fee(s) during the pendency of this application.  
☐ Charge fee(s) indicated below, except for the filing fee, to the above-identified deposit account**FEE CALCULATION****1. FILING FEE**

Large Entity Fee Code	Small Entity Fee Code	Fee (\$)	Fee (\$)	Fee Description	Fee Paid
101	201	740	370	Utility filing fee	
106	206	330	165	Design filing fee	
107	207	510	255	Plant filing fee	
108	208	740	370	Reissue filing fee	
114	214	160	80	Provisional filing fee	

SUBTOTAL (1) (\$)

**2. CLAIMS**

Total Claims	Extra	Fee from below	Fee Paid
13	X		
2	X		

Multiple Dependent Claims

Large Entity Fee Code	Small Entity Fee Code	Fee (\$)	Fee (\$)	Fee Description
103	203	18	9	Claims in excess of 20
102	202	84	42	Independent claims in excess of 3
104	204	280	140	Multiple Dependent claim
109	209	84	42	Reissue independent claims over original patent
110	210	18	9	Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$)

\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION** (continued)**3. ADDITIONAL FEE**

Large Entity Fee Code	Small Entity Fee Code	Fee (\$)	Fee (\$)	Fee Description
105	205	130	65	Surcharge - late filing fee or oath
127	227	50	25	Surcharge - late provisional filing fee or cover sheet
139	139	130	130	Non-English specification
147	147	2,520	2,520	For filing a request for ex parte reexamination
112	112	920	920	Requesting publication of SIR prior to Examiner action
113	113	1,840	1,840	Requesting publication of SIR after Examiner action
115	115	110	55	Extension for response within first month
116	116	400	200	Extension for response within second month
117	117	920	460	Extension for response within third month
118	118	1,440	720	Extension for response within fourth month
128	128	1,960	980	Extension for response within fifth month
119	119	320	160	Notice of Appeal
120	120	320	160	Filing a brief in support of an appeal
121	121	280	140	Request for oral hearing
138	138	1,510	1,510	Petition to institute a public use proceeding
140	140	110	55	Petition to revive - unavoidably
141	141	1,280	640	Petition to revive - unintentionally
142	142	1,280	640	Utility issue fee (or reissue)
143	143	460	230	Design issue fee
144	144	620	310	Plant issue fee
122	122	130	130	Petitions to the Commissioner
123	123	50	50	Petitions related to provisional applications
126	126	180	180	Submission of Information Disclosure Stmt
581	581	40	40	Recording each patent assignment per property (times number of properties)
146	146	740	370	Filing a submission after final rejection (37 CFR 1.129(a))
149	149	740	370	For each additional invention to be examined (37 CFR 1.129(b))
179	179	740	370	Request for Continued Examination (RCE)
169	169	900	900	Request for expedited examination of a design application

Other fee (specify)

SUBTOTAL (3) (\$)

\* Reduced by Basic Filing Fee Paid

**SUBMITTED BY**

Typed or Printed Name

Eric S. Hyman, Reg. No. 30,139

Registration No. (Attorney/Agent)

Telephone

(310) 207-3800

Signature

Date

4/4/02

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re the Application of:

IL-YONG PARK, ET AL.

Application No.: 10/071,127

Filed: February 8, 2002

For: **METHOD OF FABRICATING POWER  
SEMICONDUCTOR DEVICE  
HAVING TRENCH GATE  
STRUCTURE**



Art Group:

Examiner:

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## INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97

Assistant Commissioner for Patents  
Washington, D.C. 20231

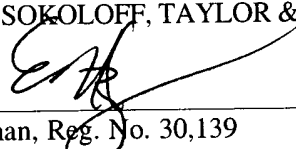
Sir:

Pursuant to Rule 1.97, Applicant desires to make of record the reference(s) set forth on the attached Form PTO 1449 (or PTO/SB/08). A copy of each reference is submitted herewith.

It is hereby stated that this Information Disclosure Statement is being filed within three months of the filing date of the subject application, therefore no petition or fee is required. However, in the event a petition is needed for consideration of this Information Disclosure Statement, Applicant hereby so petitions. Please charge any additional fee due to Deposit Account 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR &amp; ZAFMAN LLP

Date: 4/4/02
  
Eric S. Hyman, Reg. No. 30,139

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12400 Wilshire Blvd., 7th Floor  
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Telephone: (310) 207-3800

 4-5-02  
Melissa Stead

Date



Form PTO-1449 (Modified)	Atty Docket No. 2013P015	Application No. 10/071,127
List of Patents & Publications Statement	Applicant(s): Il-yong Park, et al.	
(Use several sheets if necessary)	Filing Date: February 08, 2002	Group No.:

#### U.S. PATENT DOCUMENTS

Exam. Initials		Document Number	Date	Name	Class	Sub-class	Filing Date (if appropriate)
	AA	5,567,634	10/22/1996	Hebert et al.	437	41	
	AB	5,665,619	09/09/1997	Kwan et al.	438	270	
	AC	5,689,128	11/18/1997	Hshieh et al.	257	331	
	AD	5,970,344	10/19/1999	Kubo et al.	438	270	
	AE	6,238,981	05/29/2001	Grebs	438	272	
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

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#### FOREIGN PATENT DOCUMENTS

Exam. Initials		Document Number	Date	Country	Class	Sub-class	Translation Yes	No
	AL							
	AM							
	AN							
	AO							
	AP							
	AQ							

#### OTHER ART (Including Title, Author, Date, Pertinent Pages, etc.)

Exam. Initials		Document Identification
	AR	IEEE 2000, "A 0.03um Trench Gate MOSFET with an ultra low on state resistance and a high destruction immunity during the inductive switching", A. Narazaki, et al., 3 pages
	AS	IEEE 1999, "2.5V-Driven Nch 3rd Generation Trench Gate MOSFET", A Osawa, et al., 4 pages
	AT	2001 International Symposium on Power Semiconductor Devices ICs, "An ultra Dense Trench-Gated Power MOSFET Technology Using a Self-Aligned Process", J. Zeng, et al., 4 pages

Examiner: \_\_\_\_\_ Date Considered: \_\_\_\_\_

**Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication



Form PTO-1449 (Modified)	Atty Docket No. 2013.P015	Application No. 10/071,127
List of Patents & Publications Statement	Applicant(s): Il-yong Park, et al.	
(Use several sheets if necessary)	Filing Date: February 8, 2002	Group No.:

U.S. PATENT DOCUMENTS

Exam. Initials		Document Number	Date	Name	Class	Sub-class	Filing Date (if appropriate)
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

Exam. Initials		Document Number	Date	Country	Class	Sub-class	Translation Yes	No
	AL							
	AM							
	AN							
	AO							
	AP							
	AQ							

OTHER ART (Including Title, Author, Date, Pertinent Pages, etc.)

Exam. Initials		Document Identification
	AR	2001 Elsevier Science, Journal of Alloys and Compounds 323-324, "The blue-phosphor Sr <sub>2</sub> CeO <sub>4</sub> synthesized by Pechini's method", O.A. Serra, et al., 3 pages
	AS	2001 International Symposium on Power Semiconductor Devices ICs, "Recessed Trench MOSFET Process Without Critical Alignments Makes Very High Densities Possible", A. Finney, et al., 4 pages
	AT	2001 Elsevier Science Ltd., "A process simplification scheme for fabricating self-aligned silicided trench-gate power MOSFETs", M. Juang, 4 pages

Examiner: \_\_\_\_\_ Date Considered: \_\_\_\_\_

**Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication

APR 29 2002

<b>Form PTO-1449 (Modification)</b>		Atty Docket No. 2013.P015	Application No. 10/071,127
<i>List of Patents &amp; Publications Statement</i>		Applicant(s): Il-yong Park, et al.	
(Use several sheets if necessary)		Filing Date: February 8, 2002	Group No.:

## U.S. PATENT DOCUMENTS

Exam. Initials		Document Number	Date	Name	Class	Sub-class	Filing Date (if appropriate)
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

Exam. Initials		Document Number	Date	Country	Class	Sub-class	Translation Yes	No
	AL							
	AM							
	AN							
	AO							
	AP							
	AQ							

## OTHER ART (Including Title, Author, Date, Pertinent Pages, etc.)

Exam. Initials		Document Identification
	AR	IEEE 2000, "High-Density Low On-Resistance Trench MOSFETs Employing Oxide Spacers and Self-Align Technique for DC/DC Converter", J. Kim, et al., 4 pages
	AS	
	AT	

Examiner: \_\_\_\_\_ Date Considered: \_\_\_\_\_

**Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication